

Third Laureate Applied Research

Project Title: Know-how and production line development of tungsten powder

Executive Organization: Defense Industries Organization, Ammunition Production and Metallurgy group, Maham Research Center for Sciences and Technology

Collaborators Organization: Universities, private sector and government institutions



Abstract:

As a major refractory metal, Tungsten powder is widely used in advanced industries. Major uses include high-voltage contactors, balance scale weights, perforation devices of oil wells and the production of special steels. In this project, a totally native method is used to recycle scrap containing tungsten to produce tungsten powder with desirable purity and dimensional quality, according to the customers' needs. Some of the major achievements of the proposed method are:

- Production of high-purity Ammonium Para-Tungstate (APT) as intermediate products,
- Production of 99.8% Tungsten powder with grain size of less than 10 μm ,
- Establishment of an industrial production line.

